

REMARKS

In response to the above-identified Office Action, Claims 1-8 and 10-20 remain pending in the present application.

For the reasons set forth more fully below, Applicant respectfully submits that the present claims are allowable. Consequently, reconsideration, allowance and passage to issue of the present application are respectfully requested.

Rejection under 35 USC § 102(e)

In the Office Action, the Examiner rejected claims 1-8 and 10-20 under 35 U.S.C. §102(e) as being anticipated by Jones et al ("Jones"). The Examiner states:

As for claims 1, 10 and 17, Jones teaches a method for increasing control information from a single general purpose input/output (GPIO) mechanism (see figure 3B, CompactFlash reader 42), the method comprising: utilizing a single GPIO mechanism with a socket on a computer system (see figure 3B, CompactFlash reader 42, opening slot and column 5 lines 5 lines 3B-40 [sic]); and determining whether a first card, a second card, or no card is installed in the socket according to detected changes in signals state [sic] on a single line between the GPIO mechanism and the socket (see figure 3B, controller chip 40, CF card 16, Memory stick 18, SmartMedia card 24, Multimedia card 28, Secure Digital card 28 and column 5 line 35 to column 6 line 67, wherein the controller chip 40 determines what type of card is inserted to the opening slot of the reader 42 by utilizing pins A0 and A1. Further, the controller chip 40 also determines presence of the card or not by utilizing pins CD0, CD1. Further, Jones utilizes a single line for the above detection as discloses [sic] in figure 3B, a single line is connecting from opening slot to controller chip 40). ...

Applicant respectfully disagrees with the rejection.

In the cited art of Jones, a flash-memory-card reader reads and writes multiple types of flash-memory cards, including CompactFlash, and the smaller SmartMedia, MultiMediaCard, Secure Digital, and Memory Stick. A converter chip converts the different card signals for transfer to a host personal computer (PC). The cited figure, FIG. 3B, shows a CompactFlash reader 42 that has an opening with a 50-pin connector 44 that accepts a CompactFlash card 16.

The reader 42 also reads a Memory Stick 18 via an adapter 34 that receives the Memory Stick 18 and fits into the 50-pin connector 44. Similar adapters are shown for a SmartMedia card 24 (adapter 30) and for MultimediaCard or Secure Digital card 28 (adapter 32). (See column 5, lines 34-60). The Examiner contends that a single line is used by Jones for the detection of what type of card is inserted in the opening of the reader 42 because "a single line is connecting from opening slot to controller chip 40" in FIG. 3B. Applicant respectfully disagrees with the Examiner's contention.

Jones is explicit in its use of two address pin line signals (A0 and A1) of the CompactFlash interface for the card type detection. For example, Jones teaches "detection logic in converter chip 40 reads card-select pins CD0, CD1 to detect the presence of a flash-memory card. When a new card is present, detection logic then reads pins A0, A1 as inputs." (See col. 6, lines 43-46 and 59-62; col. 7, lines 13-16, and lines 26-29.) Further, the figures of FIG. 4A, 4B, 4C, 4D, and 4E clearly show the two address pin line signals A0 and A1 of controller 40 coupled to 50-pin connector 44 and how the states of these pin line signals correspond to each type of card being detected (e.g., HH=CF, LH=MMC/SD, HL=SMRT MEDIA, and LL=MEM STK).

Thus, while the Examiner may try to rely on the single line shown in FIG. 3B, which indicates a bi-directional connection between chip 40 and the opening containing the 50-pin connector 44 in the rejection, there is nothing to support the Examiner's position that this line of the drawing represents a single signal line. In fact, Applicant respectfully submits that one of ordinary skill in the art would never consider the use of a single line in a figure to indicate a connection between a 50-pin connector and a controller chip as teaching or suggesting a single signal line between the two elements. Further, Jones clearly teaches the opposite of the Examiner's contention by relying on two signals from two signal lines (A0 and A1) between the

50-pin connector 44 and the controller 40 for card type detection, as shown and described in the aforementioned FIG. 4A, 4B, 4C, 4D, and 4E and their associated descriptions in column 6 and 7. Applicant respectfully submits that such use of two signal lines not only fails to teach or suggest the recited invention but teaches away from Applicant's recited invention.

As recited in the independent claims 1, 10, and 17 of the present invention, a single general purpose input/output (GPIO) mechanism is utilized with a socket on a computer system, and detection of at least three separate conditions of the socket occurs based on a single signal line between the GPIO mechanism and the socket. Claim 1 further recites that detected changes in signal states on the single signal line between the GPIO mechanism and the socket determine whether a first card, a second card, or no card is installed in the socket. This ability to detect at least three states on a single signal line in the present invention increases the control information available from the GPIO mechanism. Applicant fails to see how the use of two address pin signal lines, as taught in Jones, anticipates or even remotely suggests the recited utilization of a single signal line for determining three separate conditions/occupancy states of a socket. Accordingly, Applicant respectfully requests withdrawal of the rejection of claims 1, 10, and 17 under 35 U.S.C. 102(e).

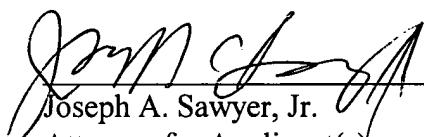
In view of the foregoing, Applicant respectfully submits that independent claims 1, 10, and 17 are allowable over the cited art. Further, claims 2-8, 11-16, and 18-20 depend from one of the independent claims. Thus, these dependent claims include the features of the independent claims that are believed to be allowable over the cited art, while adding further features. Therefore, claims 2-8, 11-16, and 18-20 are also respectfully submitted as allowable over the cited art for at least those reasons stated hereinabove.

Applicant's attorney believes that this application is in condition for allowance. Should any unresolved issues remain, Examiner is invited to call Applicant's attorney at the telephone number indicated below.

Respectfully submitted,

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Date



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